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Personal factors underlying resilience: development and validation of the Resiliency Questionnaire for Adults

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ABSTRACT

Resilience outcomes following significant adverse events are related to certain personal attributes, termed resiliency factors. This study aimed to adapt the Prince-Embury resiliency model, developed with children and adolescents, to adult populations. To that end, the Resiliency Questionnaire for Adults (RQA) was developed, consisting of nine characteristics organised around three factors: Sense of Mastery, Sense of Relatedness and Emotional Reactivity. The questionnaire adequacy was tested in adults from both general and health-distressed populations ($N = 430$) through reliability, confirmatory factor, cross-validation and multiple-group analyses. Criterion validity was assessed via path analysis with latent variables to predict resilience outcomes. The RQA scores were reliable and the three-factor model fitted the data well. The three resiliency factors predicted two-thirds of the variance in resilience. This questionnaire constitutes a reliable and valid assessment of personal factors underlying resilience.

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KEYWORDS

Resiliency; resilience; personal factors; protective factors; risk factors; questionnaire

Introduction

Resilience has been defined as the ability to bounce back from stress (Luthar, 2006; Smith et al., 2008), and is considered as the outcome or series of outcomes that occur when people successfully confront significant adversity (Leipold & Greve, 2009). Previous studies have shown that while many people show resilience when facing difficulties in life (Friedman & Kern, 2014) others are not able to develop such positive adaptation (Bonanno, 2005). So, why do some people show resilience while others do not? As some researchers have stated, part of the answer may be in personal factors susceptible of affecting resilient behaviours (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003; Friberg, Barlaug, Martinussen, Rosenvinge, & Hjemdal, 2005). In an effort to clarify this construct, researchers have labelled these protective factors as 'resiliency', which is then defined as the personal attributes of the individual that predispose to a resilient response (Luthar & Zelazo, 2003; Luthar, Cicchetti, &

Becker, 2000; Masten, 1994). Resiliency is different from resilience, which does not refer to personal attributes but to the positive adaptation outcome; it is interactive and contextual. Considering that protective personal factors (resiliency) may influence an individual's response towards adversity, it seems important to identify these factors, to be able to measure them and to analyse the way they relate to resilience (the outcome). Doing so may contribute to providing educators, counsellors and therapists the possibility of helping people achieve resilience outcomes.

Prince-Embury (2007; Prince-Embury & Saklofske, 2013, 2014) developed a resiliency theory based on the works by Garmezy, Masten, and Tellegen (1984), Luthar et al. (2000), Luthar and Zigler (1991), Masten (2001), Rutter (1987), and Werner and Smith (1992), and developed the Resiliency Scales For Children And Adolescents (RSCA; Prince-Embury, 2007). These scales include a good set of personal characteristics whose combined effect operates not only under adverse circumstances, but also in normal ones (Prince-Embury & Saklofske, 2013). These characteristics are organised into 64 items around three scales that represent two protective factors, namely Sense of Mastery and Sense of Relatedness, and a risk factor, Emotional Reactivity. The RSCA have proved to be reliable and valid measures of the personal factors underlying resilience outcomes in children and adolescents (Prince-Embury, 2007; Prince-Embury & Saklofske, 2013). Furthermore, they have proved to be useful for identifying areas of strength to help mitigate against risk factors in different vulnerable groups of children and adolescents such as children with intellectual disability (Gilmore, Campbell, Shochet, & Roberts, 2013), juvenile offenders (Mowder, Cummings, & McKinney, 2010) and adolescent psychiatric inpatients (Kumar, Steer, & Gulab, 2010). One of the main advantages of these scales is that they organise and comprise a large number of protective factors in a single measure, and thus provides an accessible way of measuring all of them at once.

This resiliency theory postulates several resiliency indicators for each of the three resiliency factors. First, Sense of Mastery is defined as a sense of competence or efficacy that is driven by an innate curiosity, which is intrinsically rewarding and the source of problem-solving skills (Prince-Embury, 2007, 2008; Prince-Embury & Saklofske, 2013, 2014). Sense of Mastery is composed of the following specific characteristics, which have been found to be related to higher resilience and/or better psychological outcomes in different studies: optimism (Sabouripour & Roslan, 2015; Segovia, Moore, Linnville, Hoyt, & Hain, 2012), self-efficacy (BBenight & Cieslak, 2011; Keye & Pidgeon, 2013) and adaptability (Bryan, Ray-Sannerud, & Heron, 2015; Luthar, 2006).

Sense of Relatedness, for its part, refers to the way in which the individual relates to others in the face of adversity (Prince-Embury, 2007, 2008; Prince-Embury & Saklofske, 2013, 2014), and includes the following characteristics; trust, perceived access to support, comfort, and tolerance. While trust (e.g. Dieperink, Leskela, Thuras, & Engdahl, 2001; Love & Murdock, 2004), comfort (Magnus, Diener, Fujita, & Pavot, 1993; Friedman & Kern, 2014; Friborg et al., 2005) and tolerance (Agbakwuru & Stella, 2012) have been found to be related to higher resilience or better psychological outcomes in previous studies, the relation between perceived access to support and resilience is unclear as mixed findings exist in the literature (Prince-Embury & Courville, 2008; Villasana, Alonso-Tapia, & Ruiz, [in press](#)).

The third resiliency factor, Emotional Reactivity, is defined as the individual's ability to modulate and regulate his/her emotional reactions (Prince-Embury, 2007, 2008; Prince-Embury & Saklofske, 2013, 2014). Strong emotional reactivity and its subsequent difficulty with self-regulation have been associated with behavioural difficulty and vulnerability to

pathology (Prince-Embury & Courville, 2008). Emotional reactivity includes the following characteristics: sensitivity, impairment and recovery. The first two have been found to be associated with worse psychological outcomes and lower resilience (Prince-Embury, 2007), and so they are risk factors for resilience. Concerning recovery, this term defines how soon and how well an individual returns to normal functioning after a strong emotional reaction. Even though recovery after an adverse experience has been considered as a resiliency factor (Davidson, 2000; Prince-Embury, 2007), it refers to resilience itself (the ability to bounce back from adversities; Smith et al., 2008) and, consequently, should not be used as a predictor of resilience, but as a direct measure of subjective resilience outcomes.

Although this resiliency model was developed in the context of adolescents (Prince-Embury, 2007), recent work with the Canadian population has also supported its validity in young adults (i.e. college students; Prince-Embury, Saklofske, & Nordstokke, 2016). In the Spanish language, a resiliency measure for adolescents based on this model has been made available very recently (Villasana et al., *in press*), but there is no measure yet available for adult populations. Moreover, some research has acknowledged that a different organisation of the resiliency factors could be possible (Prince-Embury & Courville, 2008; Prince-Embury et al., 2016). There have been some attempts in the literature to test different models (e.g. two-factor models), and results have usually supported the three-factor structure (Prince-Embury & Courville, 2008; Prince-Embury et al., 2016).

Thus, the aim of this study was to adapt this resiliency model to Spanish adult populations and test its validity. Specifically, we sought to develop and validate a concise resiliency questionnaire in Spanish that took into account the aforementioned resiliency characteristics, and to study its reliability, structural validity (i.e. number of factors) and predictive validity. We also sought to explore whether there are differences in resiliency factors across health-distressed and non health-distressed adult populations, as this matter has not been studied before. Adverse experiences can be acute or chronic and can be due to personal risk factors or to external uncontrollable factors (Masten & Narayan, 2012), and having health problems or being a parent of a child with a health-related condition can constitute an important source of stress (e.g. Vehling et al., 2012; Jantien Vrijmoet-Wiersma et al., 2008). Thus, differences in resiliency factors may emerge. Such differences, should they exist, could have important implications for mental health promotion.

Methods

Participants

A total of 430 adults from Spain participated in the study. With the aim of gathering a sample as diverse as possible in relation to the degree of experienced stress, recruitment mails were sent to different populations: the general population and specific groups that had faced or were facing different health-related conditions. The final sample was composed of 97 parents of children with serious conditions, either cancer or developmental or sensorial problems (i.e. intellectual disability, autism or deafness); 77 adults suffering from an illness (i.e. VIH, cancer), and 256 adults from the general population. Women comprised 69.8% of the sample, and with regard to age, 33.3% was in the age interval between 20 and 30 years, 22.8% between 31 and 40 years, 26.3% between 41 and 50 years, 14.9% between 51 and 60 years,

and 2.8% were above 60 years old. Regarding the educational level, 70.46% had a university degree and 29.53% had only primary, secondary or professional education.

Instruments

Resiliency questionnaire for adults (RQA)

This questionnaire was developed for this study as a derivative work of the original RSCA (Prince-Embury, 2007). We used the measure designed for children and adolescents because the instrument for young adults (Prince-Embury et al., 2016) had not been published at the time when we designed the study and started the data collection. Four experts in the field of resilience outcomes and health psychology examined the 64 items of the RSCA in order to suggest items with relevant content. Despite the evident benefits of comprehensive measurement (i.e. lengthy instruments), burdensome length is a matter that needs to be carefully considered, especially when the measure is intended for people who are probably going through a difficult time (Folkman & Moskowitz, 2004; Moskowitz, Hult, Bussolari, & Acree, 2009). Thus, we aimed to produce a shorter instrument. The experts selected 36 items (four per scale) based on their analysis of scale and item content (i.e. the four items which best represented the underlying construct were selected). The items were then translated and adapted for a Spanish adult population, that is, more adult-focused wording was used while adhering to the meaning of each underlying construct (e.g. references to parents were removed and references to people were used instead). A psychometric expert reviewed the items' phrasing and made improvements.

Half of the items were negatively worded to avoid acquiescence bias. The items assess the nine following personal factors, with four items for each of them: optimism, self-efficacy, adaptability, trust, support, comfort, sensitivity and impairment. These characteristics were grouped in the three factors Sense of Mastery, Sense of Relatedness and Emotional Reactivity. Items were answered on a five-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). An English translation of this questionnaire is included as an Appendix 1.

Brief Resilience Scale (BRS)

This six-item measure assesses self-reported resilience outcomes, defined as the ability to recover from stress (Smith et al., 2008). The BRS has a five-point Likert response format (1 = Strongly disagree, 5 = Strongly agree). The scores range from 6 to 30, with higher scores indicating higher resilience. It has shown adequate internal consistency (α ranging from .80 to .90) and test-retest reliability ($r =$ from .62 to .69) and has been recommended on the basis of its psychometric properties in a recent review of 15 resilience measures (Windle, Bennet, & Noyes, 2011). In this study, the Spanish version was used (Rodríguez-Rey, Alonso-Tapia, & Hernansaiz-Garrido, 2016), whose scores also showed adequate internal consistency ($\alpha = .83$) and test-retest reliability (ICC = .69).

Procedures

The study was approved by the ethics committee at the authors' university. The general population sample was contacted by email using a snowball method in which University workers were asked for collaboration to spread the questionnaire. Besides, several NGOs were contacted (for HIV-positive individuals, for adult cancer patients, for children with cancer

and their families, and for parents of children with health disabilities or developmental disorders) and asked to send the potential participants an email containing information about the study, along with a link to the informed consent and the questionnaires. Those who decided to participate completed the questionnaires online.

Data analysis

First, to determine the factorial validity of the Resiliency questionnaire for adults (RQA), two hierarchical confirmatory factor analyses (CFA) were performed to test three and two-factor models. These models were first tested in a randomised subsample containing approximately half of the total sample. Then, based on the CFA results, a cross-validation analysis (CVA) was performed with the second randomised subsample to test the sample invariance of the three-factor model. Hereafter, a multiple-group analyses (MGA) was conducted to explore whether the three-factor model worked differently in the subsamples of general population versus health-distressed individuals. As measure indicators were ordinal, estimates were obtained in all analyses using the weighted least squares means and variance adjusted estimation method (WLSMV; Beauducel & Herzberg, 2006; Wang & Wang, 2012). Absolute fit indices (χ^2 , χ^2/df) and non-centrality fit indices (TLI, CFI, RMSEA) were used to assess model fit, as well as criteria for acceptance or rejection based on the degree of adjustment described by Hair, Black, Babin, and Anderson (2010).

Second, the reliability of the RQA dimension scores was estimated using McDonald's ω coefficient, as it is adequate for multidimensional constructs and ordinal scores (McDonald, 1999).

Third, a path analysis with latent variables (PALV) was performed to explore the extent to which resiliency personal factors predicted resilience outcomes. Sense of Mastery, Sense of Relatedness and Emotional Reactivity were used as predictors, estimated by scores on the basic personal factors, and resilience was the criterion, estimated by BRS scores.

Finally, to determine the validity of the RQA's scores for discriminating between health-distressed and non health-distressed samples, an ANOVA was carried out to test possible mean differences in the three resiliency factors across the three subsamples of participants.

Estimates were obtained using IBM SPSS 22.0 and M-Plus 7.3 software.

Results

Initial confirmatory factor analyses

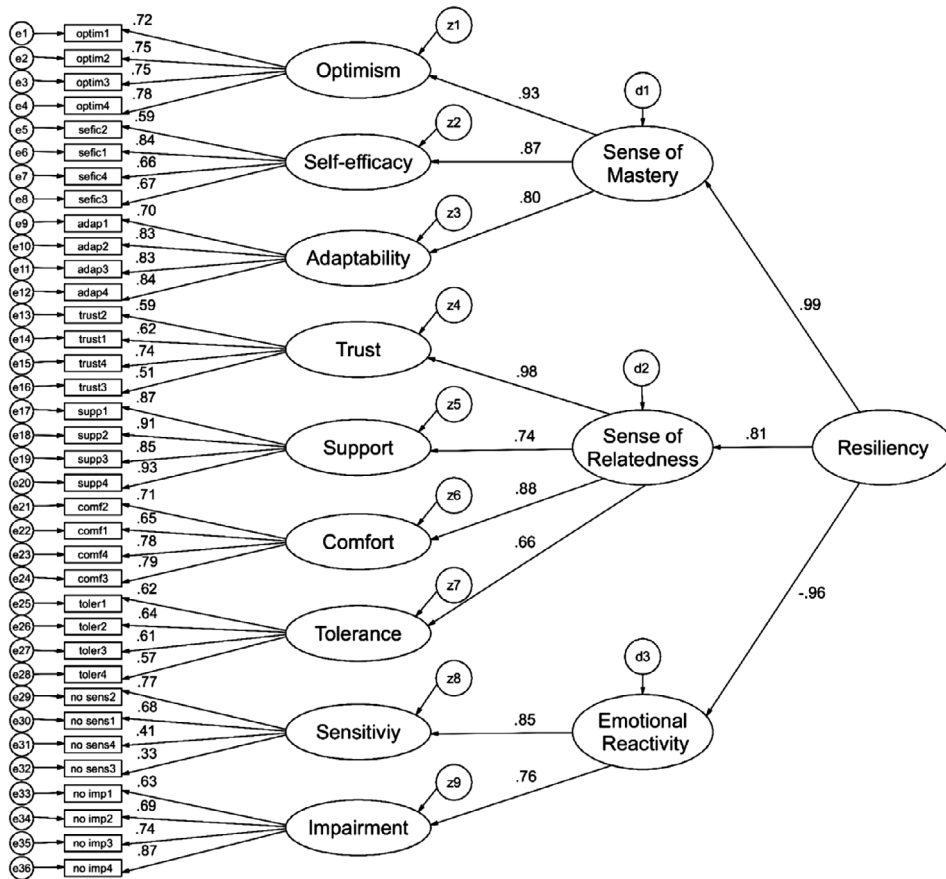
Three-factor model

Table 1 shows the model fit statistics for the CFA in the first randomised subsample (CFA-3F). Chi-square statistic was significant, probably due to large sample size (Hair et al., 2010), but $\chi^2/df = 1.58 < 5$, and the remaining fit indices (TLI = .94 > .90; CFI = .93 > .90; RMSEA = .053 < .08) were well inside the limits that allowed the model to be accepted. Figure 1 shows the standardised estimates. All estimated weights were significant ($p < .001$). Sense of Mastery and Emotional Reactivity had a correlation of $r = -.89$; Sense of Mastery and Sense of Relatedness had a correlation of $r = .86$; and Sense of Relatedness and Emotional Reactivity had a correlation of $r = -.69$, all of them $p < .001$.

Table 1. Goodness of fit statistics for the CFAs and the PALV.

	χ^2	df	p	χ^2/df	TLI	CFI	RMSEA
CFA-3F ($n = 216$)	925.05	584	<.001	1.58	.94	.93	.053
CFA-2F ($n = 216$)	1538.60	585	<.001	2.63	.91	.90	.062
CVA ($n_1 = 216, n_2 = 214$)	1871.21	1288	<.001	1.45	.94	.94	.046
MGA ($n_1 = 256, n_2 = 174$)	2015.05	1288	<.001	1.61	.92	.93	.053
PALV ($N = 430$)	301.44	84	<.001	3.58	.92	.94	.078

Notes: CVA, MGA and PALV were conducted using a three-factor model. n = subsample size; N = sample size; CFA = Confirmatory Factor Analysis; CVA = Cross-Validation Analysis; MGA = Multiple-Group Analysis; PALV = Path Analysis with Latent Variables; df = degrees of freedom; p = level of significance.

**Figure 1.** Confirmatory standardised solution of the Resiliency Questionnaire for Adults.

Two-factor model

A two-factor solution that combined Sense of Mastery and Emotional Reactivity in a single factor was examined then because of the strong negative correlation found between these factors in the previous analysis, which was the strongest of all. Table 1 shows the model fit statistics for this model in the first randomised subsample (CFA-2F). Although the chi-square statistic was again significant, $\chi^2/df = 2.63$, and the remaining fit indices (TLI = .91; CFI = .90; RMSEA = .062) were also inside the limits of acceptance. However, this two-factor model had

Table 2. Internal consistency (McDonald's ω) of the scales and subscales.

General Resiliency Scale .98					
<i>Sense of Mastery</i>	.98	<i>Sense of relatedness</i>	.96	<i>Emotional reactivity</i>	.97
Optimism	.91	Trust	.75	Sensitivity	.60
Self-efficacy	.86	Support	.98	Impairment	.85
Adaptability	.92	Comfort	.90		
		Tolerance	.72		

a worse fit to data than the three-factor solution, and so the latter was used for the remaining analyses.

Cross-validation analysis

A CVA was then carried out with the second randomised subsample. The model comparison statistics showed that fit was not significantly reduced in relation to the model without restrictions when equality restrictions between groups were established for measurement weights, structural weights, structural covariances, structural residuals and measurement residuals ($p > .05$). The fit statistics, also presented in Table 1, were very similar to those of the CFA-3F.

Multiple-group analysis

A MGA was carried out to explore whether the model was different for health-distressed versus non health-distressed individuals. The analysis showed that fit indices did not significantly decrease when restrictions were imposed for measurement weights, structural covariances and measurement residuals, so there were no significant differences in the models between both groups. The fit statistics, also presented in Table 1, were very similar to those of CFA-3F and CVA.

Reliability

The reliability statistics are shown in Table 2. Internal consistency (McDonald's ω) of the RQA factors was excellent, and that of the indicators were acceptable to excellent, with only sensitivity showing $\omega < .70$.

Path analysis with latent variables (PALV)

A PALV with resiliency factors as predictors and resilience outcomes as criterion was conducted. Figure 2 shows the results of such analysis of data for the whole sample. All estimated weights were significant ($p < .001$).

Table 1 shows model fit statistics. Chi-square statistic was significant, but the ratio $\chi^2/df = 3.58 < 5$, and the remaining fit indices (TLI = .92 > .90; CFI = .93 > .90; RMSEA = .07 < .08) were all inside the standard limits of acceptance. Most importantly, prediction weights (γ) were all significant and the amount of variance in resilience outcomes that was explained by the three resiliency factors reached 66%. Higher resilience outcomes were predicted by higher Sense of Mastery and lower Sense of Relatedness and Emotional Reactivity.

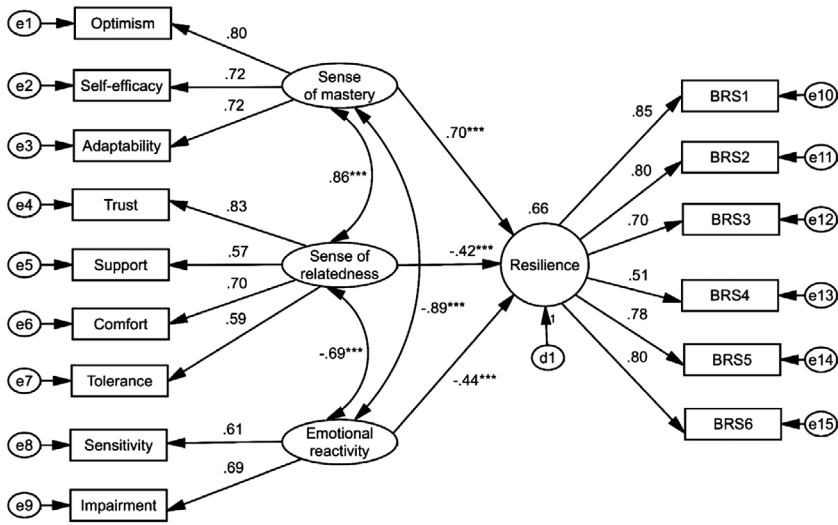


Figure 2. Path analysis with latent variables.

Note: Prediction of Resilience by Resiliency factors.

Table 3. ANOVA of differences between health-distressed and non health-distressed samples.

Variables	Group	Mean	SD	<i>F</i>	<i>p</i>	η^2
Sense of mastery	1	45.87	7.67	6.146	.002	.028
	2	43.03	9.54			
	3	43.05	8.43			
Sense of relatedness	1	63.89	9.21	8.147	< .001	.037
	2	59.69	11.00			
	3	60.40	9.73			
Emotional reactivity	1	22.17	5.37	3.302	.038	.015
	2	23.83	5.78			
	3	21.97	4.91			

Notes: Groups: 1 = Non health-distressed adult; 2 = Adults with health problems; 3 = Parents of children with health problems. SD = standard deviation; *p* = level of significance; η^2 = effect size.

ANOVA results

As shown in Table 3, differences across samples were significant for the three resiliency factors. Post hoc analyses between each pair of groups using the Scheffé statistic showed that, regarding Sense of Mastery and Sense of Relatedness, general population individuals scored higher than adults with health problems (Sense of Mastery: $p = .030$; Sense of Relatedness: $p = .004$) and parents of children with health or developmental problems (Sense of Mastery: $p = .017$; Sense of Relatedness: $p = .011$). Finally, in the case of Emotional Reactivity, mean differences fell slightly short from the standard limits of significance. Adults with health problems scored somewhat higher than the general population ($p = .059$) and parents of children with health or developmental problems ($p = .075$).

Discussion

The main objective of this study was to develop and validate a resiliency questionnaire for adults based on the resiliency theory (Prince-Embury, 2007) in a heterogeneous Spanish sample. A comparison via CFA showed that a three-factor solution was superior to a two-factor solution, and so the former was retained, consistently with previous studies which have supported it (e.g. Prince-Embury & Courville, 2008; Prince-Embury et al., 2016). Moreover, the confirmatory analyses (CFA, CVA and MGA) showed that the three-factor resiliency model was indeed able to explain the data of adult individuals, and so these analyses support the structural validity of the questionnaire and its use with adult populations (both health-distressed and non health-distressed).

The reliability of the scales' and subscales' scores was acceptable to excellent, and therefore they can be used for research and clinical purposes, with the exception of the sensitivity subscale, which we advise not to be used on its own. Regarding predictive validity, two-thirds of the variance of adults' resilience outcomes scores could be predicted from the resiliency questionnaire, which highlights the importance of taking into account resiliency factors when trying to explain resilience outcomes and to foster them through intervention.

We also found three important additional results. First, there was a strong negative relationship between Sense of Mastery and Emotional Reactivity. This association could indicate that it is possible to exert some degree of cognitive control over emotion, consistently with literature supporting this idea (Marusak, Martin, Etkin, & Thomason, 2015). However, it could also indicate the contrary: a high emotional reactivity could impair the cognitive function. Due to the correlational nature of this result, it needs to be therefore replicated in different samples, and the directionality of the influence should also be studied (e.g. through longitudinal assessments).

Secondly, Sense of Relatedness negatively predicted resilience outcomes, a result that is contrary to the expectations based on Prince-Embury's work (2007), and adds to the mixed findings in literature, as some authors also found a lack of association between the two in adolescents (Villasana et al., *in press*). This unexpected result, however, was most likely due to the high and positive correlation between Sense of Relatedness and Sense of Mastery. If this were the case, it would indicate that both Sense of Relatedness and Mastery are indeed protective factors, as suggested by the literature (Prince-Embury, 2007, 2008; Prince-Embury & Saklofske, 2013, 2014). Moreover, it could suggest that having a high Sense of Relatedness without a feeling of personal agency (i.e. low of Sense of Mastery) may not help achieve resilience outcomes. Nevertheless, this is only a hypothesis – our results would need to be replicated in different samples, and then mediation and moderation effects should be studied to better understand how Sense of Mastery and Sense of Relatedness operate and help predict resilience outcomes. Additionally, more research is needed to elucidate if age plays an important role in the direction of the association between Sense of Relatedness and resilience outcomes, or if the different Sense of Relatedness indicators (trust, perceived access to support, comfort and tolerance) contribute in different ways to resilience outcomes.

Third, even though the MGA showed that the model worked equally for health-distressed and non health-distressed individuals, ANOVAs showed that there were significant differences between these subsamples regarding their mean levels of Sense of Mastery and Sense of Relatedness. These differences suggest that having experienced or to be experiencing an adverse situation could affect the psychological processes underlying these two resiliency

factors, and implies that, though the resiliency profile may help people achieve resilience outcomes in front of adversity, the personal factors could be affected by such adversity. This notion must be treated with caution, as people with a diversity of problems were grouped together in this analysis. These results need to be replicated in bigger and more homogeneous samples, as this is an initial approximation.

Above-described results have several implications. First, the fact that Sense of Mastery and Sense of Relatedness were lower for those who experienced health-related distress affects their possibility of achieving resilience outcomes. This suggests the importance of exploring whether the processes underlying these resiliency factors vary depending on the type of adverse situation. Future research should study the possible differences across populations that may seem similar but could in fact be different, such as cancer patients and HIV-positive individuals. Second, interventions aimed at fostering resilience or mental health in general in adults should focus on improving their Sense of Mastery and decreasing their Emotional Reactivity. Doing the latter may allow the better employment of other resiliency aspects (Prince-Embury & Saklofske, 2014). Regarding Sense of Relatedness, it would be important to study its role in the specific case and make sure it does not hinder a resilience outcome.

This study comes with some limitations that merit attention. First, the convenience sampling of the participants may have resulted in only those motivated enough completing the questionnaires. Also, since the recruitment and participation were made online, only those with access and knowledge about computers, emails and web-browsing were able to enter the study. This would imply that our sample could be biased (e.g. highly educated participants) and thus limits again the generalisability of our results. Third, within the group of health-distressed individuals, there were people experiencing very different adverse problems, but as the number of participants with each specific problem (e.g. HIV patients, cancer patients) was not large enough, we could not study whether there were specific resiliency profiles of subgroups. Fourth, our data on the associations between resiliency factors and subjective resilience outcomes are based on correlations, and so the causal link remains to be tested.

This study validated in adult populations the resiliency model initially developed for children and adolescents. It informed of the psychometric properties of a new resiliency measure in Spanish for adults, and it showed that the model fits different samples well (i.e. general population and health-distressed adults) and it can predict a high percentage of resilience outcomes. Finally, it showed that the degree to which individuals show different resiliency factors can vary depending on the degree or kind of adversity that they experience. Mental health promoters should take these findings into account when assessing individuals and designing interventions.

Geolocalization information

The paper reports data concerning Spain.

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Disclosure statement

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Appendix 1. English translation of the Resiliency Questionnaire for Adults (RQA)

[The sign '(–)' indicates inverse items]

Optimism

- 1. In general, I tend to think that things will go well.
- 10. If anything bad can happen to me, it probably will. (–)
- 19. When I have a problem, I tend to think that it will resolve satisfactorily.
- 28. I often think that things tend to get worse in life. (–)

Self-efficacy

- 2. When I make decisions, I make mistakes very often. (–)
- 11. In general, I think I am a person who can overcome problems successfully.
- 20. When a problem arises, I often think that there is little I can do about it. (–)
- 29. I see myself as a person that can make the right decisions in most cases.

Adaptability

- 3. I do not find it very hard to adapt to changes.
- 12. Every time I have to face a new situation, I have a hard time. (–)
- 21. I usually adapt quite well when I have to face a new situation.
- 30. I have a hard time when I have to adapt to changes. (–)

Trust

- 4. People usually take advantage of me at every opportunity. (–)
- 13. People tend to accept me as I am.
- 22. People don't usually like me. (–)
- 31. I think people are essentially good.

Support

- 5. I have people to lean on when I have difficulties.
- 14. I generally have no one that I can ask for help when something bad happens. (–)
- 23. There are some people to whom I can confide my things.
- 32. When I have problems, I usually feel that I have no one to count on. (–)

Comfort

- 6. I usually find it difficult to carry a conversation with new people. (–)
- 15. If I have to deal with someone, I don't usually feel uncomfortable.
- 24. When I am with others, I often feel uncomfortable. (–)
- 33. I usually feel at ease when I am with other people

Tolerance

- 7. I am usually able to forgive after an argument.
- 16. I can't tell somebody that I do not agree with him or her in a calm way. (–)
- 25. I can accept that another person may have a different point of view.
- 34. When someone hurts me, I find it difficult to forget about it and carry on as before. (–)

Sensitivity

- 8. When things do not go as I'd like them to, I immediately feel frustrated.
- 17. There are few things in my daily life that make me feel bad. (–)
- 26. If anyone messes with me or upsets me, I easily lose my temper and get defensive.
- 35. People say that it's not easy to see me angry. (–)

Impairment

- 9. I usually can think straight and keep pace when a problem makes me feel uneasy. (–)
- 18. I tend to make mistakes when I am upset.
- 27. I usually can think clearly even if I'm upset or worried. (–)
- 36. If something makes me feel bad, I am not able to concentrate and make decisions normally.